

## **REMARKS/ARGUMENTS**

### **The Status of the Claims.**

Claims 1 to 15, 20 to 23, 25, 26 and 67 are pending with entry of this amendment. Claims 16 to 19, 24, and 27 to 66 being cancelled and claim 67 being added herein. Claim 1 is amended herein. These amendments introduce no new matter and support is replete throughout the specification. These amendments are made without prejudice and are not to be construed as abandonment of the previously claimed subject matter or agreement with any objection or rejection of record.

With respect to claim 1, support for dispersed droplets and 20% or less of free fatty acids can be found throughout the specification. For example, see the free fatty acids in the specification at paragraphs 22, 44, 48, 65, 80 and 81. Dispersed phase droplets and particles can be found, e.g., at paragraphs 44 and 59; and the Filler Composition section starting at paragraph 77.

With regard to new claim 67, support can be found throughout the specification, e.g., at paragraphs 23 and 68; the Heat Treatment section starting at paragraph 86; and the Examples section.

Applicants submit that no new matter has been added to the application by way of the above Amendment. Accordingly, entry of the Amendment is respectfully requested.

### **35 U.S.C. §102.**

Claims 1 to 4, 8, 13, 14, 21 to 23, 25 and 26 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by A Hard Boiled Egg. To the extent the rejection is deemed applicable to the amended claims, Applicants traverse.

In order for a reference to anticipate an invention, the reference must teach each and every element of the claimed invention. That is, in order for a reference to anticipate an invention, "all limitations of the claim are found in the reference, or 'fully met' by it." *Kalman v. Kimberly-Clark Corp.*, 218 USPQ 781, 789 (Fed. Cir. 1983).

As a preliminary matter, Applicants have previously responded to allegations that the inventive composite gel is allegedly anticipated by a hard boiled egg. In the Response of November 20, 2008, Applicants remarked that:

The present rejections are based on the allegation that an egg white constitutes the continuous phase and the yolk constitutes the lipid phase. However, these allegations fail to identify at least the limitations of a "dispersed phase" of "lipid droplets". In addition, the rejection fails to allege, e.g., a dispersed phase wherein the lipid droplets are protected against degradation in passage through a rumen.

The cited yolk ("the lipid phase" of the Action, but not a term present in the claim) is not dispersed. The singular yolk is surrounded by denatured egg white but not dispersed, e.g., as droplets within the white. Further, a dispersed phase embedded in the matrix must comprise a plurality of droplets or particles, which does not exist in the egg, and is not alleged in the rejection.

The cited hard-boiled egg, would not be protected from degradation during passage through the famously intense digestion processes experienced during passage through a rumen. Nor has it been alleged. The Office's own reference acknowledges that such eggs are "digested easily, even by [human] infants".

The present Action avoids discussion of a "dispersed phase" as found in the claim and specification; therefore, failing to state a case. In the previous Response, Applicants had noted that "the lipid phase" was not a term in the rejected claim. Yet, the present Action at page 3 continues to reject based on the immaterial statement that the "yolk would constitute the lipid phase." Applicants note the yolk is surrounded in the white as a unit, while the term "dispersed" means spread or distributed. See, e.g., Webster's Dictionary.

In the Response to Arguments at page 4 of the Action, the Office insists that "Applicant ... argues that the yolk does not comprise a plurality of droplets or particles. ... It is unclear is Applicant asserting the entire yolk is one lipid molecule. Clarification is requested." For clarification, Applicants note that one, two or three lipid molecules do not necessarily provide a dispersed phase of lipid droplets. For complete clarification, one can simply read the previously filed statements above. Applicants have previously clearly noted for the record that the Office has failed to allege a "dispersed phase embedded within a continuous phase matrix", as required by the claim. For further clarity, Applicants have amended the claims, without any change in scope, to provide that the dispersed phase is dispersed.

The claim requires that the composite gel have certain identified composite gel structures and that the gel be protective, e.g., against degradation through a rumen. Applicants have previously stated that the Office's own reference acknowledges that such eggs are "digested easily, even by [human] infants". Yet the Action at page 4 continues to suggest that "[s]ince a hard boiled egg meets the structural limitations of the instant claims, it is the position of the examiner; absent a showing of evidence to the contrary that it would not provide the same properties." Applicants have previously provided such evidence that is apparently discarded without comment by the Office. Further, the entire rationale for rejection is moot since, as discussed above, the structures are in fact not the same.

Because the Wiki egg reference continues to be specifically proscribed by Office policy (even as evidence), the hard boiled egg is not a composite gel of the claims, the Office has not described a dispersed phase of lipid droplets dispersed in a continuous phase, and an egg is not protected against degradation in a rumen, the egg can not be considered to anticipate independent claim 1. Because dependent claims include all the limitations of the parent claim, they too must be considered novel. Applicants respectfully request withdrawal of the rejections.

**35 U.S.C. §103(a).**

**Claims are not obvious based on Freeman.** Claims 1 to 8, 11 to 15, 20 to 23 and 25 were rejected under 35 U.S.C. §103(a) as allegedly obvious based on Freeman (U.S. 4,808,429) alone. To the extent the rejection is deemed applicable to the amended claims, Applicants traverse.

A proper analysis under the recently reaffirmed *Graham v John Deere* standard demonstrates the non-obviousness of the invention. According to the Supreme Court in *KSR International Co v. Teleflex* (550 U.S. \_\_\_\_ (2007); 127 S. Ct. 1727, 1740-41, 82 USPQ2d 1385-1396 (US 2007)), the appropriate standard for analyzing questions of obviousness is that:

the scope and content of the prior art are determined, differences between the prior art and the claims at issue are analyzed and the level of ordinary skill in the pertinent art is resolved. Against this background the obviousness or non-obviousness of the subject matter is determined. Such secondary considerations as commercial success,

long felt but unresolved needs, failure of others, etc. might be utilized to give light to the circumstances surrounding the origin of the subject matter to be patented.

*Id.* quoting *Graham v. John Deere of Kansas City* 383 U.S. 1, 17-18.

The current Examination Guidelines (e.g., MPEP 2143) and *KSR* require the Office in an obviousness rejection to provide a statement as to why one of skill would have combined known elements. Further, an obviousness rejection must include fact-based findings demonstrating: 1) a combination of reference elements describing each limitation of the claims, 2) known elements that function in the same way in the combination as in the references themselves, 3) the elements are combined by known methods, 4) the result of the suggested combination of elements would have been predictable, and 5) one of skill in the art would have expected success in providing the claim in light of the references. Here, the rejection fails each of these requirements, as applied to the *Graham* factors.

Freeman teaches at most an aqueous protein gel emulsion of at least 25% free fatty acids (FFAs). The "microbial degradability" of the protein is not reduced until the gel is dried.

Freeman does not teach all limitations of the claims. The Action at page 5 alleges that Freeman teaches encapsulation of lipid material expressly requiring more than 20% free fatty acids in a protective proteinaceous matrix. However the protective matrix is in the form of dry granules, not a gel. Moreover, the currently amended independent claims require that the lipid component of the emulsion comprise 20% or less of free fatty acids. Therefore, the present claims can not be considered obvious in light of Freeman, which actually teaches away from the present claims.

Further, because the gel of the claims is not produced in the same manner as in Freeman, the suspension pH range would not obviously be the same.

The claims are further non-obvious because the identified methods and functions of free fatty acid gel structures in Freeman are different from those to the amended claims.

The claims are further non-obvious because there would not be an expectation of success in the claims based on the teachings of Freeman. Table 2 of Freeman teaches that gels are not produced by the heating when there is 20% or less of free fatty acids in the lipid

material. Freeman at column 3, line 8 states that "drying conditions" are required to reduce microbial degradability of the protein matrix. The stated correlation between protection and drying teaches away from the protective nature of aqueous matrix in the claimed gels. Because Freeman does not teach all limitations and teaches away from the claimed invention, there would not be an expectation of success in providing the present inventions based on the teachings of Freeman.

The Action at page 7 rejects the claims based on the statement that it would have been obvious to feed the Freeman gel to animals with the expectation of incorporating high lipid levels without processing difficulties. However, this stated motivation does not seem relevant to motivating one of skill to practice all the modifications necessary to provide the particular composite gels of the invention in light of Freeman. In fact, the previously described teachings away from the inventions would have eliminated the suggested motivating expectations.

The structures of the suggested Freeman gel (or alternately dry composition) are different and do not function in the same way as the presently claimed compositions. Therefore, the present claims can not be considered obvious according to MPEP 2143 and *KSR*. The FFA cross-linked gels of Freeman would not function to protect lipids against, e.g., degradation by the aggressive microbes of a rumen (see Freeman column 3, line 8, and Examples). The dry granules fed to cattle in Freeman (column 5, line 63) would have chemical and physical structures totally different from those of the claimed gels, so could not be combined with any art to provide the present inventions.

Because Freeman does not teach all limitations, Freeman teaches away from the invention, Freeman would not have motivated or directed the one of skill to practice the claimed inventions, provides different structures functioning differently from structures of the invention, and would not have provided an expectation of success, the independent claim can not be considered obvious. Because dependent claims include all the limitations of the parent, they to can not be considered obvious.

With regard to dependent claims, Applicants stand by remarks of prior Responses. For example, the specific surface area of claim 7 is expressly or inherently present in Freeman, nor is it alleged.

**Claims 9 and 10 are not obvious based on Freeman and Cook.** Cook does not cure the defects of Freeman, as discussed above. Cook teaches, at most, direct feeding of conjugated linoleic acid to enhance weight gain in non-ruminant animals (rats and chickens).

The Action at the bottom of page 7 refers to *In re Aller* and finds optimum ranges obvious by routine experimentation because general conditions of the claim are allegedly disclosed in the prior art. However, the general conditions are not disclosed, as discussed above. For example, the high FFA and dried composition of Freeman is different from the claimed composite gels, therefore the general conditions are not the same and experimentation would not obviously provide the same gel constituent ranges. Furthermore, optimization also requires that a "particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). No such recognized as a result-effective variable upon which to experiment has been identified by the Office, so a case has not been stated.

There would be no expectation of success in the suggested combination because, the combination does not provide all limitations required to practice the claims, the Freeman gel is not protective without drying, unprotected consumption of lipids by ruminants is known not to be generally beneficial, and the Freeman gel requires FFAs greater than 20% even to provide the different unprotected gel.

Because the suggested combination does not teach all limitations, properly motivate, or provide an expectation of success, Applicants respectfully request withdrawal of the obviousness rejections based on the combination of Freeman and Cook.

### CONCLUSION

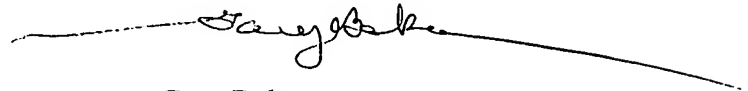
In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Appl. No. 10/620,315  
Response Dated April 8, 2009  
Reply to Office Action of March 13, 2009

If the claims are deemed not to be in condition for allowance after consideration of this Response, a telephone interview with the Examiner is hereby requested. Please telephone the undersigned at (510) 769-3510 to schedule an interview.

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Respectfully submitted,



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Attachments:

- 1) A transmittal sheet; and,
- 2) A receipt indication postcard.